

Norfolk Southern Corporation Three Commercial Place Norfolk, Virginia 23510-2191 Sarah Quisenberry Director Strategic Planning (757) 629 – 2686

November 21, 2007

Mr. Matthew Tucker Director Department of Rail and Public Transportation 1313 East Main Street Suite 300 Richmond, VA 23219

Re: Proposed Roanoke Regional Intermodal Facility Site Studies

Dear Mr. Tucker,

Norfolk Southern (NS) has reviewed the list of ten sites proposed for possible locations of the Roanoke Regional Intermodal Facility, part of the NS Heartland Corridor Rail Enhancement Agreement Number 76506-01. Currently NS operates on two main lines west of Roanoke, the single track V-Line used primarily for coal trains traveling east to Norfolk, and the double track N-Line (Heartland Corridor) used by all intermodal trains, all merchandise trains and westbound empty coal trains. The analysis attached to this letter addresses each site with respect to the parameters identified by the Department of Rail and Public Transportation (DRPT) which include:

- Reasonable access to and egress from I-81,
- Location on the Heartland Corridor line between Walton to the west and the Shenandoah line connection to the east,
- No additional grade separations required, particularly in congested urban areas,
- A minimum of 65 acres and flat topography
- Minimized roadway costs that might be engendered or necessitated, and
- Operational efficiency, no degradation to rail traffic flows, and efficiency of intermodal operation.

Of the ten sites studied, only the Elliston site in Montgomery County meets all of the selection criteria. As you know additional engineering work was done on the Elliston site, the Garman Road Virginian site in Roanoke County, and the Colorado Street site in Salem. According to the analysis, the Garman Road Virginian and the Colorado Street Salem sites do not meet several of the original site selection criteria. NS has concluded that the Garman Road Virginian and the Salem sites cannot be constructed at a reasonable cost with efficient operational efficiency needed to avoid degradation of rail traffic flow and service disruptions on both the V-Line and the N-line. Since Roanoke is a major terminal for NS where rail traffic from all directions converge, NS has determined that construction of a facility on either the Garman Road Virginian or Colorado Street Salem site will disrupt the rail traffic in this region and could affect the overall service on our system. The Elliston site is the only site which meets all DRPT criteria and supports NS requirements for operational efficiency, safety, service, and economy.

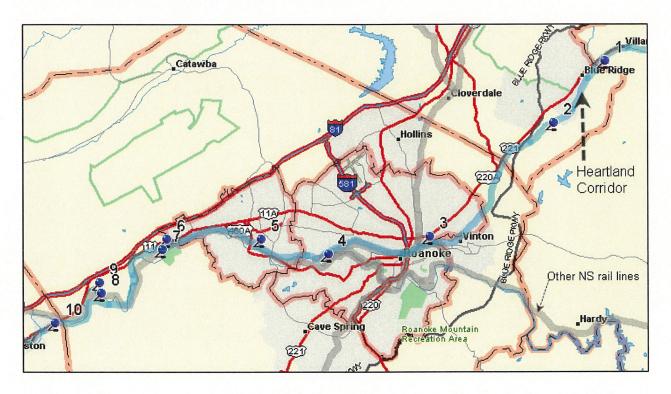
Respectfully yours,

Sarah Quisenberry

CC:

Mr. Kevin Page, DRPT Mr. Jim Hixon, NS Dr. Robert Martinez, NS Mr. Bruce Wingo, NS Mr. Randy Noe, NS Mr. Lee Cochran, NS Mr. Charlie McMillan, NS

## Norfolk Southern Corporation Review of Proposed Roanoke Region Intermodal Site Locations



	I	Roanoke Re	gion Intermo	dal Facility Si	tes by Selection Cr	iteria	
			On		Minimum 65	Minimize	
		Access	Heartland	New grade	acres & flat	roadway	Operationally
Site	Location	I-81	Corridor	separations	topography	costs	efficient
1	Blue Ridge	14 miles	YES	YES	50 acres, hilly	NO	NO
2	Webster Brick	11 miles	YES	YES	25 acres, hilly	NO	NO
	Roanoke						
3	East End Shops	6 miles	YES	YES	6 acres, flat	NO	NO
	Roanoke				10 acres,		
4	Material Yard	5 miles	YES	NO	relatively flat	NO	NO
	Colorado St				45 acres,		
5	Salem	5 miles	NO	YES	relatively flat	NO	NO
	Garman Rd						
6	N&W	3 miles	YES	YES	50 acres, hilly	NO	NO
	Garman Rd						
7	Virginian	3 miles	NO	YES	110 acres, flat	NO	NO
					30 acres, not		
8	Singer	1 mile	YES	NO	uniform	YES	NO
					50 acres,		
9	Horn	1 mile	NO	YES	relatively flat	NO	NO
					65 acres,		
10	Elliston	3 miles	YES	NO	relatively flat	YES	YES

#### 1) Blue Ridge Site:

The Blue Ridge site is located on the Heartland Corridor at milepost N-246 south of the main line tracks. The topography is not uniform; there are severe peaks and valleys in this industrial zone. The proposed site is adjacent to Boxley materials and is not developed. The site allows double ended rail access which is required for operational efficiency. The main line is on a steep, curvy grade making train access difficult and not practical. Access to the Shenandoah Line is impractical from this facility. There is moderate access to I-81 at exit 150A (Cloverdale Rd). The proposed site is directly off of US Rt 460. The site would require a main line crossing for truck access which raises safety concerns. There is a grade separation (underpass) for SR 805 on the west side of the site but this would have to be replaced to handle truck traffic. NS has concluded that this site cannot be constructed to yield safe operations.

#### 2) Webster Site:

The Webster site is located on the Heartland Corridor at milepost N-248.6 south of the main line tracks. The topography is not uniform with severe peaks and valleys in an industrial zone. The proposed site is currently a clay quarry for General Shale Brick and is actively in use. The main line is on a steep, curvy grade making train access difficult and not practical. Access to the Shenandoah Line is impractical from this facility. There is a curvy two-lane road (Webster Rd) with no shoulder to access US 460 from the facility. There is moderately good access to I-81 at exit 150 A (Cloverdale Rd). The site would require a main line crossing for truck access which raises safety concerns. Unless grade separated, the SR 723 crossing would be blocked for long periods of time when trains are switching the facility as well. A grade separation at milepost N-248 (SR 607 Archway Rd) would require fill on both sides. NS has concluded that this site cannot be constructed to yield safe operations or without significant roadway investment and grade separation.

#### 3) Roanoke East End Shops:

The East End Shop site is located on the Heartland Corridor at milepost N-256.5 north of the main line tracks. The site has a uniform topography in an industrial zone on the edge of downtown Roanoke. The site is constrained by existing rail facilities (East End Shops and the waste transfer station), Tinker Creek, and existing development. Relocation of the Lawson warehouse would be required. The facility would be stub-ended which makes it awkward for trains to work. Access to the Shenandoah Line is impractical from this facility. Trucks would access I-581 to connect to I-81. Use of congested city streets would be required to access I-581. A grade separation would be required at Hollins Rd, of which the facility is immediately west, as the crossing would be blocked for long periods of time when trains are switching the facility. Roadway improvements would likely be required to improve access to I-581. NS has concluded that this site cannot be constructed to yield efficient rail operations or without significant roadway investment and grade separation.

#### 4) Roanoke Roadway Material Yard Site:

The Roadway Material Yard site is south of the tracks along the Heartland Corridor and adjacent to the NS Track Material Storage Yard. Use of the site would require relocation of the material yard. The site has a uniform topography in a light industrial zone. The site is too small for an effective layout as it is space-constrained between the Roanoke River and the Roanoke Yard. Additional study would be required to determine the extent of negative impacts on yard operations while trains work the proposed facility, but preliminary analysis suggests they would be extensive. The site has poor access to I-81 using city streets. Some type of truck entrance/exit onto public roads would have to be constructed. Highway access would require a new road and bridge crossing of the Roanoke River. The site is directly accessible to the Shenandoah line. NS has concluded that this site cannot be constructed to yield efficient rail operations or without significant roadway investment including new roads and a new bridge.

### 5) Colorado Street (Salem):

Colorado Street is one of three sites which received additional engineering review. Currently NS operates two adjacent main lines immediately west of Roanoke, the single track V-Line used primarily for coal trains eastbound to Norfolk and the double track N-Line (Heartland Corridor Route) used by intermodal, merchandise and westbound empty coal trains.

At one time the City of Salem, DRPT and NS discussed building a small intermodal facility on the approximately 10 acres between the V-Line and the N-line at Salem. Construction of a small intermodal facility on this 10-acre site is undesirable for safety and service reasons. A facility on this site would require a grade crossing over the main line for the trucks to access the facility. If the facility were expanded at some future date the grade crossing would be within the terminal. Trucks stopping within the terminal to cross an active main line raises significant safety concerns and elevates the risk of a traintruck collision. In addition, a 10-acre terminal would only be able to support limited service with no opportunity for expansion. This limits the marketability of the facility and endangers its success and viability. The N-Line or the V-Line main could be realigned in order to avoid the at-grade crossing within the terminal and provide a larger footprint on which to design the facility, which the following analysis takes into consideration.

The city of Salem requested that the facility be designed to maximize use of NS-owned property with expansion, as required, beyond NS-owned property to the south of the rail lines. In addition the City expressed a desire to have truck access confined to Virginia 419 with access to the facility by way of Indiana Street. Indiana Street, located on the north side of the N-Line, and a facility constructed on the south side of the V-Line would involve constructing an overpass over the rail lines between the proposed facility and Indiana Street in order to avoid trucks crossing three main tracks on an at-grade road crossing. Construction of such an overpass would significantly increase costs and displacement of impacted homes and business. Therefore the Salem site was designed to take into account the City's requests as much as possible while controlling costs, which led to the design of an alternative truck access.

The proposed Colorado Street site in Salem is south of the N-Line at MP N-264. The site plan includes a relocation of the V-line north to run alongside the N-Line in order to maximize use of NS-owned property. With the current NS operations, the single track V-Line is used primarily for coal trains eastbound to Norfolk and the double track N-Line (Heartland Corridor Route) is used by intermodal, merchandise and westbound empty coal trains. Crossover tracks must be built to allow intermodal trains on the Heartland Corridor (N-Line) route to cross over onto the V-Line to access the facility.

The site plan reverses the crossovers currently located in the WB Interlock so that a westbound train will be able to access the facility from the Westbound Main. The Salem Connection will be reconnected to the V-Line east of the overpass for State Route 419 so this track can be used to create a switching track on the east end. The combination of the relocated V-Line main and the Salem Connection will create a switching track on the east end with a clear length of 3,400°. The plan also includes converting the V-Line to an Industrial Lead east of McClelland Street to serve industries located in this area. A new interlock just west of McClelland Street will be created that will include a power No. 15 crossover between the relocated V-Line and the N-Line Eastbound Main and a power No. 15 crossover between the Eastbound Main and the Westbound Main. This new interlock will allow a westbound train leaving the facility to access the Westbound Main and access into the proposed facility for eastbound intermodal trains.

The proposed Salem site is not located on the Heartland Corridor and requires these new connections between the Heartland Corridor (N-Line) and the V-line. It has a uniform topography and is in a light industrial zone. New dispatch procedures and considerable signal and communication improvements will be necessary. The facility has been designed to utilize the existing openings in the Colorado Street overpass in order to reduce required roadway improvements. It was designed so that truck traffic would be routed to Rowan Street which connects into US 11 just south of Colorado Street overpass. Truck traffic then would go south on US 11 to Route 419.

From a preliminary environmental review, it appears that fill materials were used to bring all or a portion of the subject site to its current grade. Fill material presents potential issues with excavating and settling and structural stability. Sewer lines are present on the site. Three industrial facilities are located within the area of the proposed facility and would require relocation: Salem Preferred Partners; L.L.C. Rowe Furniture Corp; and Graham White Manufacturing Co. A small wet area (0.25-0.5 acres) exists at the site where storm water is directed. Storm water that is not directed into the on-site wetland is conveyed directly into the Roanoke River. It is believed that two areas at the site have been subjected to petroleum

releases via leaking underground storage tanks. Excavation of impacted soil and groundwater may be required. A portion of the proposed development will extend into the 100-year floodplain and any encroachment on the Roanoke River will have to be further analyzed. FEMA requirements could restrict the amount of fill placed on the site.

The Colorado site, located on the V-Line, will cause major disruption and significant time delays to all rail traffic operating through Roanoke. This site will require rerouting the intermodal traffic from the N-Line to the V-Line then back to the N-Line. Eastbound coal traffic and all other rail traffic on the V-Line will have to be halted for over an hour while an intermodal train is utilizing the V-Line to switch the intermodal facility located at Colorado St. It will be very difficult and uneconomical to build a bypass track around the facility to avoid blocking traffic on the V-Line while an intermodal train switches the Colorado site due to:

- Existing development east of the site,
- The V-Line and N-Line diverging east of the site,
- The difference in elevation between the V-Line and N-Line east of the site, and
- Construction of new rail bridges over the Roanoke River and Mason Creek, which would significantly increase the project cost.

While an intermodal train is switching this facility, Union Street could be blocked for various periods of time depending on the length of the train and how many cars are being switched. Switching the facility usually takes about 45 to 60 minutes from the time the train arrives until the train is ready to leave. Switching involves the removal and placement of a group of rail cars ranging up to 2,600' in total length on Pad Track 1 and 2,300' in total length on Pad Track 2. Most likely Union Street will be blocked while a westbound train delivers or picks up a group of cars from this facility since there will be only 1,391' from the Pad Track 2 switch to Union Street and 2,146' from the Pad Track 1 switch to Union Street. The facility cannot be moved farther to the east because of the Roanoke River, which borders the southeastern side of this site. In order to avoid blocking Union Street, a grade separation would be required, further increasing the cost to construct this facility.

Additionally, all rail traffic will be disrupted for a period of time to align switches and change signal indications to allow an intermodal train access to this facility from the Heartland Corridor (N-Line). Intermodal traffic operates on a time sensitive schedule to compete with trucks and any delays imposed on this traffic will make it more difficult to convert current highway traffic from truck to rail. NS has concluded that this site cannot be constructed to yield efficient rail operations or to avoid significant delays to traffic moving through the Roanoke region.

#### 6) Garman Rd N&W Site:

The Garman Rd N&W site is located on the Heartland Corridor at milepost N-268.5 north of the main line tracks. It is directly accessible to the NS Shenandoah line and Altavista line. The 50-acre site is located in a light industrial zone and is hilly with over 40' difference in elevation. Also due to existing terrain and development, this site has limited room for growth and expansion. Double-ended connection to the main line is possible but this requires that the Heartland Corridor main line serve as a switching lead for the facility. Using the main line as the facility switching lead is undesirable as traffic flow delays will be significant while the facility is switched. Double crossovers on the east and west could be built in order to allow trains to pass the facility and avoid this congestion. However, additional crossovers increase the cost to construct the facility. The site has good access to I-81 on the west side at exit 132 (Dixie Caverns) and on the east side at exit 137 (Wildwood). However, the access road to the facility is congested with truck traffic today. Grade crossings at Garman Rd and Duiguids Rd could be blocked up to an hour while an intermodal train switches the facility. In order to avoid blocking these streets, grade separations would be required at both roads, further increasing the cost to construct this facility. A grade separation at Duiguids Rd presents engineering challenges and is estimated to cost \$25 million to construct. Property will need to be acquired that is already occupied; a significant number of businesses and homes will be displaced. The site is close to historic Fort Lewis. NS has concluded that this site cannot be constructed to yield efficient rail operations without displacing a large number of homes and businesses and without significant roadway investment, particularly the \$25 million Duiguids Rd grade separation.

#### 7) Garman Rd Virginian Site:

The Garman Rd Virginian is one of three sites which received additional engineering review. Currently NS operates two adjacent main lines immediately west of Roanoke, the single track V-Line used primarily for coal trains eastbound to Norfolk and the double track N-Line (Heartland Corridor Route) used by intermodal, merchandise and westbound empty coal trains. The V-Line is the former Virginian main line and the site is located on the V-Line, not on the Heartland Corridor. The site is directly accessible to the Shenandoah line and the Altavista line.

This is a large site with room for expansion. It is potentially 110 acres. It has a flat topography in a light industrial zone. The site will require two connections to route eastbound intermodal trains into the facility and to route eastbound coal trains around the facility. Connecting tracks exist on the east at VN (V-253.32/N-267.28) and the Salem Connection (V-251.04/N-262.8). An additional connection at VN would be required to avoid train delay using the Salem Connection for westbound intermodal trains. The site allows double ended rail access. However, the new connections required to reroute trains around the facility make this site the most expensive of the three sites studied for additional detailed engineering review.

New dispatch procedures and considerable signal and communication improvements will be necessary. All rail traffic will be disrupted for a period of time to align switches and change signal indications to allow an intermodal train access to this facility from the Heartland Corridor (N-Line). This site will require rerouting the intermodal traffic from the N-Line to the V-Line then back to the N-Line, thereby causing disruption and time delays to rail traffic operating through Roanoke.

The site has good access to I-81 on the west side at exit 132 (Dixie Caverns) and on the east side at exit 137 (Wildwood). The area is moderately congested currently; trucks must traverse 6 urban intersections to reach I-81. The site requires an overpass to be built to provide adequate safety and minimize the potential of truck-train collisions as truck access to the facility would cross over the main line tracks. The Duiguids Rd at-grade crossing would be blocked for long periods of time when trains are switching the facility unless this was grade separated.

Property will need to be purchased. The property for the facility is mostly undeveloped. Two residences and one large construction/demolition debris-fill/borrow site are located on the facility site. The site is primarily dominated by large open undeveloped fields, which are used partially for livestock pasture. Overhead power lines and sewer lines are present. Property for the required connecting tracks will result in a significant number of businesses and homes being displaced.

The project will involve the construction of a connection track along the edge of the Roanoke River and Koppers on property owned by Koppers. The Koppers site is currently a high priority Resource Conservation & Recovery Act (RCRA) Corrective Action (CA) facility (VAD003125770). In 2000, the Virginia Department of Environmental Quality (DEQ) was granted authorization by the Environmental protection Agency (EPA) to administer corrective action under the Hazardous and Solid Waste Amendments (HSWA) of RCRA. Currently, contaminant cleanup has been initiated, but is not completed. The primary contaminants in the groundwater and soils at the facility are polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs).

The site is located in the 100-year flood plain for the Roanoke River and construction of a facility will involve bringing in fill material to raise the facility above the flood plain. Placement of fill in a flood plain will involve detailed studies on the impact the project will have on the 100 year flood elevations and what remedies will have to be done to offset any impact this project would have on the existing flood plain for the Roanoke River. Additional property may be required to create equivalent acreage for the flood plain to offset any used for the facility. NS has concluded that this site cannot be constructed to yield efficient rail operations without significant investment; the new connections required to reroute trains around the facility make this site the most expensive of the three sites studied for additional detailed engineering review.

#### 8) Singer Site:

The Singer site is located on the Heartland Corridor at milepost N-273 north of the main line tracks. It is directly accessible to the NS Shenandoah line and the Altavista line. The topography is not uniform and the site is located outside of a large, sharp curve. There is a significant elevation difference between the site and the main line. The curvature of the main line and facility are a challenge and make efficient and safe rail operations unfeasible. The site is approximately 1 mile from I-81 and exit 132 (Dixie Caverns). Some upgrades of local roads may be required for trucks to access the facility. No grade separations are required. Much of the property is privately owned. The proposed facility would require the relocation of a historic farm home. NS has concluded that this site cannot be constructed to yield efficient and safe rail operations.

#### 9) Horn Site:

The Horn Site is located at V-260 and is not on the Heartland Corridor. A new rail connection would be required to access the Heartland Corridor. The site is directly accessible to the NS Shenandoah and Altavista lines. The topography is not uniform and the site is located inside a large, sharp curve. While the site permits double ended rail access, the curvature of the main line and facility provide a challenge for efficient and safe rail operations. The site is approximately 1 mile from I-81 and exit 132 (Dixie Caverns). Some upgrades of local roads may be required for trucks to access the facility. Unless grade separated, the SR 639 crossing would be blocked for long periods of time when trains are switching the facility. Much of the property is privately owned; some displacement of homes and businesses would be expected. NS has concluded that this site cannot be constructed to yield efficient and safe rail operations.

#### 10) Elliston Site:

Elliston is one of three sites which received additional engineering review. This 65-acre site is relatively flat and near main line elevation. There is limited room for growth and expansion beyond the 65-acre footprint. The site is located on the double track Heartland Corridor (N-275). The facility would be on the south side of the tracks. It is directly accessible to the Shenandoah line and the Altavista line.

The N-Line is double track main line. Powered crossovers (connecting track) already exist on either side of the proposed site (on the west at Arthur (N-282.2) and Montgomery (N-284.6) and on the east at Singer (N-273.3). These crossovers allow a train on Main line #2 to move over to Main line #1 which is directly adjacent to the intermodal facility. The crossovers also allow trains to pass while the facility is switched. Service disruptions are not expected while the facility is switched because the crossovers make it manageable from a dispatching perspective. In addition, unlike the Garman Rd Virginian and Colorado St sites, trains do not have to switch back and forth between the N-Line and the V-Line around the facility. The proposed site plan would enable efficient and manageable train operations so that no traffic flow delay is expected.

VDOT indicated the site is in a good location due to access to US 460 and I-81. Additionally, they indicated the traffic volumes projected would not create a significant change to traffic on US 460. The site is directly off of US 460 with access to I-81 on the east side at exit 132 (Dixie Caverns). Approximately one mile of SR 603 would have to be relocated to pass beneath the existing rail bridge over the Roanoke River and a new highway bridge would be required to cross the river. The existing SR 603 at-grade crossing would be eliminated. With relocation of Cove Hollow Rd, no crossings would be blocked when trains work the facility.

In addition, possible access to I-81 on the west side at exit 128 (Ironto) can be created if it is upgraded for truck traffic. Over the past year local concerns regarding the project have grown and are centered around anticipated truck traffic on Rt 460. While not required for the site's operation, an \$8.2 million upgrade to Rt 603 and construction of the Ironto Connector has been designed and could alleviate concerns if funding is identified. Most of the property is privately owned. It is moderately developed, with at least 6 residences directly affected. Concerns have been raised by area residents about the transition of this largely rural area to an intermodal terminal.

The Elliston site is the only site which meets all DRPT criteria and supports NS requirements for operational efficiency, safety, service, and economy.

# Cost Comparison of Intermodal Sites FULL BUILD SCENARIOS

Item	Elliston	Virginian	Colorado	
Trackwork	\$2,674,000.00	\$4,447,000.00	\$4,961,000.00	
Subballast	\$420,000.00	\$752,000.00	\$1,064,000.00	
Demolition	\$161,000.00	\$0.00	\$1,570,000.00	
Clearing	\$333,000.00	\$400,000.00	\$320,000.00	
Soil & Erosion	\$98,000.00	\$170,000.00	\$135,000.00	
Excavation	\$4,689,000.00	\$4,560,000.00	\$2,855,000.00	
Drainage	\$675,000.00	\$595,000.00	\$600,000.00	
Bridge	\$0.00	\$800,000.00	\$1,350,000.00	
Highway Overpass	\$0.00	\$5,500,000.00	\$17,000,000.00	
Fencing	\$251,000.00	\$264,000.00	\$250,000.00	
Guard Rail	\$68,000.00	\$85,000.00	\$82,000.00	
Cameras	\$151,000.00	\$151,000.00	\$151,000.00	
Tire Spike System	\$110,000.00	\$110,000.00	\$110,000.00	
Bob Tail Kiosk System	\$100,000.00	\$100,000.00	\$100,000.00	
Signs	\$35,000.00	\$35,000.00	\$35,000.00	
Utilites	\$269,000.00	\$245,000.00	\$127,000.00	
Fire Protection System	\$410,000.00	\$291,000.00	\$284,000.00	
Maintenance Pad	\$550,000.00	\$550,000.00	\$550,000.00	
Electrical System Including Lights	\$1,138,000.00	\$1,230,000.00	\$1,067,000.00	
Communications & IT	\$616,000.00	\$616,000.00	\$616,000.00	
Signals	\$154,000.00	\$7,882,000.00	\$2,921,000.00	
Packer Pad	\$4,906,000.00	\$4,887,000.00	\$4,766,000.00	
Pavement for Trailer Lot & Entrance	\$3,334,000.00	\$4,005,000.00	\$2,964,000.00	
Dolly Pad	\$139,000.00	\$129,000.00	\$121,000.00	
Air System	\$350,000.00	\$350,000.00	\$350,000.00	
Modular Building	\$602,000.00	\$602,000.00	\$602,000.00	
Property	\$3,000,000.00	\$4,800,000.00	\$4,704,000.00	
Legal	\$50,000.00	\$50,000.00	\$50,000.00	
Wabum Track Work	\$0.00	\$673,000.00	\$0.00	
Wabum Site Work	\$0.00	\$1,077,000.00	\$0.00	
Wabum Property	\$0.00	\$3,400,000.00	\$0.00	
Relocation of Cove Hollow Road	\$6,300,000.00	\$0.00	\$0.00	
Engineering & Construction Management	\$1,876,000.00	\$1,900,000.00	\$1,826,000.00	
Bond & Permits	\$130,000.00	\$145,000.00	\$135,000.00	
Contengincies & Misc. Items	\$1,911,000.00	\$2,049,000.00	\$1,934,000.00	
TOTAL	\$35,500,000.00	\$52,850,000.00	\$53,600,000.00	

Full Build	pacity Parking	Container 222 in stacks Trailer 447	Trailer 622	Trailer 633	Trailer 585	
	Terminal Capacity Tracks Pari (Ft - Clear)	Pad 5,000 22 Storage 8,500 44 Total 13,500	Pad 5,200 <b>Storage</b> 8,040 <b>Total</b> 13,240	Pad 4,800 Storage 7,600 Total 12,400	Pad 4,800 Storage 7,200 Total 12,000	
Phase II	apacity Parking	Container 222 in stacks Trailer 447	Trailer 400	Trailer 501	Trailer 323	
	Terminal Capacity Tracks Parl (Ft - Clear)	Pad 5,000 Storage 8,500 Total 13,500	Pad 2,300 Storage 5,170 Total 7,470	Pad 2,300 Storage 5,100 Total 7,400	Pad 2,300 2,300 Storage 4,800 Total 7,100	
Phase I	Capacity Parking	Container 222 in stacks Trailer 447	Trailer 222	Trailer 132	Trailer 262	
	Terminal Capacity Tracks Park (Ft - Clear)	Pad 5,000 Storage 8,500 Total 13,500	Pad 2,900 Storage 2,870 Total 5,770	Pad 2,500 <b>Storage</b> 2,500 <b>Total</b> 5,000	Pad 2,500 Storage 2,400 Total 4,900	
	Size (acres	46.5	*29	137	48 ain	
	Notes	3.18 miles to I-81 6 major urban intersections to reach I-81 *Historic Fort Lewis	3.59 miles to I-81 2 rural intersections to reach I-81 *acerage includes Cove Hollow Relocation	Requires detailed est Terminal in Flood Plain 3-5 ft of water in 100 yr flood plain 3.35 miles to I-81 6 urban intersections to reach I-81	Some of Terminal in Flood Plain Adjacent to State Route 419 Approx 3.6 miles to I-81	
	Estimate Components	10,000,000 Real Estate & relocation 4,000,000 Track and Signals* 13,100,000 Terminal Construction 27,100,000 **Cross-overs**	3,000,000 Real Estate 26,046,000 Terminal Construction (includes Track & Eng) 154,000 Signals 29,200,000	4,800,000 Real Estate 1,750,000 Wabum Connection 3,400,000 Wabum Property 30,518,000 Terminal Construction (Incl. Koppers Connection) \$7,882,000 Signals 48,350,000	4,704,000 Real Estate 28,975,000 Terminal Construction (Incl. Relocation of V-Line) \$2,921,000 Signals 36,600,000	
	Facility Needs (Rail & Terminal)	10,000,000 R 4,000,000 T 13,100,000 T \$27,100,000	3,000,000 Real Estate 26,046,000 Terminal Co (includes Tr 154,000 Signals \$29,200,000	4,800,000 Real Esi 1,750,000 Wabum 3,400,000 Wildoum 30,518,000 Termina 57,882,000 Signals \$48,350,000	4,704,000 Real Est 28,975,000 Termina (Incl. R \$2,921,000 Signals \$36,600,000	
	Roadway Needs Roadway Needs	Garman Grade Sepairation \$4,000,000 Diuguids Grade Separation est \$25,000,000 \$29,000,000	Cove Hollow Road Relocation with bridge \$6,300,000 Salem Dist indicates it is a good location from a traffic standpoint (not required) \$8,200,000	Grade Separation 4,500,000	Union Street grade separation \$17,000,000	
	Project Facility Costs plus Roadway		\$35,500,000	\$52,850,000	\$53,600,000	
	SITE	Garman (N&W)	Elliston	Garman (Virginian)	Colorado	

RKE Reg Option Comparisons FINAL 2007.xls

1/2/20084:53 PM